

VOL. XVII. No. 9.

# RASPBERRY ISSUE

### Raising Raspberries.

Why do many fail with raspberries? is a common question. Largely because they do not secure the right soil at first, and second because they do not maintain their richness. After the roots are planted the canes that shoot up this year will produce fruit next season. They should then be pruned out to give the other new canes a chance to bear. If the new canes appear in great quantity it will be necessary to pinch off the buds in order to produce a few large laterals. In this way we get canes large enough to support themselves. This can be done so successfully that no stakes or other supports are required. The work of fastening the young canes to the stakes is quite a serious undertaking, especially in a large field, and the cost of the many supports for raspberries is a heavy item in the bill of materials. For this reason every cane must be tied to the supports every spring. Various systems of supports for raspberries are adopted. Some divide two stakes into the ground around each root and inclose the clump of canes in an ordinary barrel-hoop, the hoops being nailed to the stakes about a foot or two from the ground. Some divide the rows and divide the line of the rows and divide the strand or two of strong wire over them. The support will keep the vines in position and prevent them from falling down after a severe storm, or from running all over the ground. The canes should be pruned every fall. The canes that have fruited the first time should be pruned back either to the first spring or to about one-third the leading back the leading shoots. The laterals should be shortened to about one-third their original length.

### Hardiness of the Raspberry.

You ask for experience as to the hardiness of the new raspberries. The Loudon was perfectly hardy here, the past winter, which was one of the severest we have had for many years. We had 1½ acres in an exposed position, on rather low ground, where a full sweep of the winter winds from the north could strike them. The plants were not protected in any way, and the bushes have come out alive to the very tips, without the slightest indication of any injury. We regard this a very satisfactory test of the hardiness of this variety. There is quite a plantation of Loudon at Fort Collins, Colorado, about 10 years ago. We have received reports from this plantation that the Loudon is hardy there, and that the Canada planters were largely interested in the hardiness of the Loudon. They have increased their plantings of this variety, which is proof of good indication that they are satisfied with its behavior. I hope to hear about the hardiness of the Columbian and Miller from some of your correspondents. It must be understood that there are localities in this country where no raspberries could be raised, and therefore, the question of hardiness is simply one that applies to localities.—Rural New Yorker.

### The New Red Raspberry.

Two answers have been received to our query in December "Fruit."

D. W. Sampson, Eureka, Minn., writes: I am very much pleased with both the plant and fruit. The past winter they stood unprotected over 20 degrees below zero and were not injured. I shall plant out five acres of them as fast as possible as I believe them to be the best red raspberry in existence. In summer of 1895 I was at the originator's grounds in Wisconsin and saw an acre in full bearing. Canes strong, healthy and loaded from top to bottom with fruit as large as the Cuthbert.

**AS LARGE AS THE CUTHBERT,**  
**BRIGHTER COLOR, FIRMER**  
**AND BETTER FLAVOR.**

Eugene Willet & Son, Erie County,  
Y. writes: As compared with the Cuthbert the London is a stockier bush not  
so susceptible to sucking insects, con-  
densing its growth more in the fewer  
leaves. Wood harder than Cuthbert,  
which perhaps accounts for its standing  
very cold weather better than its only pos-  
sible rival, the above mentioned, with-  
out the loss of its leaves. The color  
crimson, free from thorns except a few at  
the base.

Fruit fully as large as Cuthbert, a bright-  
er color, much firmer and to our taste bet-  
ter. The above information was obtained  
excellent in hardness of bud; our plants  
the past winter came through without the  
loss of the terminal bud even, which we  
never remember the Cuthbert, being able  
to retain the above information. It is  
dictated by the pomological journal named  
"Fruit," published in Chautauqua County.)

### Planting and Care of Black Raspberries.

We should plant the rows seven feet apart, and set plants three feet apart in the row. Plant rows north and south when practicable, but would rather plant rows east and west rather than plant up and down hill. Well grown plants from tips are taken up, occupy with their roots, a circle about one foot in diameter; and therefore dig holes for plants, leave one foot across, and several inches deeper than the plants want to be set. The setter draws some good top soil back into the hole leaving it higher in middle, and having it sloping to the west, so that sprout of plant to be about two inches (no more) below the surface, and let the long fine roots slope downwards around the center, and fill in fine soil on roots, and press down firm, but leave soil loose on top. Keep the soil moist, and after heavy rains, to prevent roots from forming on surface, but the steel rake is better than hoe, until plants are well up. When plants have grown to be about one foot high, pinch from tips of leading shoots about 1/2 inch, to make them grow more stocky, when they are about 1 1/2 feet high, pinch so low and sprawling. After pinching a tip, back once, do not touch it again that season, but let it grow at will. Never touch, stake. If plants were good to start with, good soil, and good cultivation given, the plants will suffer at all stages, but will make by and by. It matters not what form your vines may take, do not touch

them until the next spring, and especially, if you have planted the elder, they will take care of themselves, as far as cold or heat is concerned, and they need no protection, to stand the climate north or south. "Pruning." The next spring (one year from planting) shorten in the canes more than half way to hold moisture and keep the fruit clear of the last year's growth. In the fourth year, at the very first part fore of June, cut away the young canes will spring up from the hills, and when they are from 18 to 24 inches high, according to their strength and uprightness, cut or pinch from their tips, about one third of the length, say every two days (as the canes grow up very quickly), and pinch off every cane as soon as they get the right height. We usually watch the patch for shoots, about ten days after we begin to pinch back. We cut the grain, and plant a cane but once, and we would also do so on a hill, and throw them on the brush pile, as to neglect to do the pinching back at the proper time. After the pinching back is done, they want no more pruning until the next spring, except cutting out old canes which may be seen to be dead. When the fruit is picked, remove all old canes that fruited, cutting them off near the ground, and carry out at once and burn them. As soon as the old canes are removed, cultivate at once, to be out of the way of the weeds and grass, and clean out with hoe, all weeds and grass that may be among the hills.

In after years do as already advised, but pinch back canes somewhat higher, but leave them no more than 2½ feet high. They will then grow to the best form to produce the most fruit, and to stand without support. As the patch gets older, perhaps they may throw up too many canes to the hill. If so, after removing old canes, the new ones should be cut to the strongest and best. I often leave 6 or 8. The more left, the surer we have to prune. Four strong canes with many laterals, are better than more. Shorten in canes every spring to make a good hill and row, and not leave the canes too long. You will be more inclined to leave too much wood rather than not enough. There is no rule to follow by, but cut out the old canes and after a season or two with careful watching we will learn what they require. Different varieties need somewhat different treatment, as some varieties grow more sprawling than others. The Older will take on a better form of itself than any other blackcap that I have, can be pruned to make. The Older is the ideal cane, and the best for the hill and row, and can others be pruned to grow like them, and they give me more pleasure, satisfaction and profit than any other that I ever planted. Pruning. Last spring, to guard against wind storms, I pruned shorter than ever before. The hills looked rather shaggy, until the berries came out. The canes were short jointed, and the fruit stems came out in multitudes, from five to ten in length. At picking time the rows were even and in fine form, being about 3½ feet high, and about 4 feet across, and a mat of berries spread over

## Cornell on Rasp

Bulletin No. 57 of the horticultural division of the Cornell Experiment Station contains some useful notes on raspberries and blackberries as a farm crop, prepared by Mr. Fred W. Card. Many of the points are of quite as much interest to those who grow them as a market crop. Some of the most interesting of these we give below:

### BLACK RASPBERRIES.

The fact that a given variety yields a comparatively dry berry, like the Ohio, does not prove that the crop when evaporated will be the heaviest. Some tests made by Professor Goff show that the smallest and juiciest berry sometimes yields the most dried fruit. With some of the best growers the Gregg is supplanting the Ohio, although it is not so universally hardy as the latter berry. In some tests made by the Ohio Experiment Station the Gregg yielded the greatest amount of food value to a bushel of green fruit of any variety dried.

#### CULTIVATION.

Among growers the most popular fertilizer is stable manure, wood ashes ranking next, and ground bone and the so-called complete fertilizers next. Thorough cultivation is becoming more and more important, and the best means of increasing fertility to crops. Red clover grown on land by itself, cut when in blossom, and applied along the rows as a mulch while the center space between the rows is kept thoroughly cultivated, has been most successful. The best means of increasing and careful attention this method has given some phenomenal yields. It is probable that the general verdict in favor of stable manure depends upon the fact that this is a material which growers are most likely to have at hand. It is also one which contains nitrogen in proportion to other ingredients, and it may be with profit supplemented by potash and phosphoric acid. Spring planting is always to be preferred for black caps, but if it is desirable to secure the plants in the fall, they should be sown in the fall and mulched well through the winter, and then set in a permanent place after the young shoots have made a growth of a few inches in spring. This ensures the weeding out of poor plants. The plants should be set in rows, and the plants in each row should be first, and gradually filled up until the roots are at least, from three to four inches deep.

### Horticultural Items. — New Raspberry, Etc.

As the above mentioned fruit is Wisconsin production, it is but natural that planters should look to our Society for information concerning it. As secretary, I have already received several letters of inquiry from parties outside of the State, and I have been obliged to write in order to answer these questions correctly. I concluded to visit it on the grounds of the originator in the bearing season so that by comparing it there and on other fruit plantations with other similar berries, I could come to facts concerning it, at least to satisfy myself, and to fortify my opinions. I will give those of a few other men of experience in growing small fruits. I have often thought if the value and adaptability of any new fruit could be looked up and collated in the bearing period, it would have a large circulation among the farmers in advance of introduction, it could avoid much of the fault-finding about those things afterward. With the foregoing objects in view I went to Janesville July 11th, stopping at Madison to call on the Governor, and at State Street Station, to accompany me. I found about two acres of the London in bearing at the midst of a severe drought and showing much damage done by the hard frost of June 5th last, to early blossoms and fruit. I had no opportunity to examine it, and had no chance to compare it with the Tur-

Toby, superintendent of the Thayer one-hundred-acre small fruit farm at Sparta, says that the "Red Raspberry" is better than both Marlboro and Cuthbert. Equals Marlboro in hardiness. Excels Cuthbert as a shipper and is superior to all reds in length of season—we consider it the best of the reds we have tried." E. S. Goff, of the University of Maryland, says: "The sin Experiment Station," says July 16th: "I find bush dwarfed one foot shorter than Turner, canes strong. I observed little of anthracnose or septoria on plants. Fruit of general form and color of Cuthbert. Equal to largest of Marlboro in size. Same in flavor, but somewhat firmer in texture and quality. In productiveness fully equal to most productive Cuthbert plants I have ever seen. Without protection the young plants are making a vigorous growth. And if productiveness should be equal on other grounds to that of Mr. London's this variety will undoubtedly prove a valuable acquisition and is destined to become a standard both for home use and market." R. J. Coe, treasurer of Wisconsin State Horticultural Society, says: "Quality very good and I consider it worthy of trial." Hanchett & Son, small fruit growers at Sparta, says: "From what I have seen and can hear, I believe the London to be the coming Red Raspberry." This firm picked and marketed one hundred and seventy-five half bushel cases of red and black raspberries in 1906. The London Raspberry, their plantation is not large, but in fine

## All About Raspberries

These are also very largely grown in this District. They are propagated by taking up the suckers in autumn or winter which the roots of the parent plant throw up. The land is manured and ploughed, holes are dug in every fifth or sixth furrow, the young plants after having their stems cut to within a foot of the ground line are planted in the holes at a distance of usually about 15 inches apart. During the following summer there is very little fruit; it is a common practice to grow early potatoes between the rows the first season. The second year the canes usually bear well, and may so continue for fifteen years if the soil and cultivation suit. About the middle of the spring, the canes that have borne fruit are cut out close to the ground, and the young canes are thinned and shortened to about two feet high, or to the point where they show weakness by beginning to twist; this shortening makes the cane strong enough to stand straight. In the autumn, the whole of the leaf and during winter the suckers are dug up, and the land between the rows either dug or ploughed, throwing the furrow towards the canes. During the spring and summer the plantations are kept clean by hoe and hand hoeing. Raspberries are sent to market in autumn, and raspberries, rubies, and garnets, about 96 varieties, except for punnets, they are picked without the strig. The manures chiefly used

vigor and health of plant. John S. Harris, President, Minn.; Charles W. Sampson, small fruit grower, Minnesota; L. G. Corliss, pomologist; A. J. Phillips, secretary, and R. J. Coe, treasurer of Wisconsin State Society; and D. C. Converse and G. J. Kellogg, small fruit growers of Wisconsin. The weather was at the time of our visit hot and six weeks previous very dry so that the berries were somewhat shriveled. The berries tested by over a dozen people—home keepers and fruit growers, and without exception they pronounced it very good. I fruited on my grounds in La Crosse County last season and I picked a pint or late as August 25th, and all who saw it said it was good.

As to covering will say that while there are small fruits that will live and produce fruit in this latitude (La Crosse County) without covering, I know of none but that it will pay well to cover in the increase of the crop. So I covered my vines carefully last fall, and will report the crop later when better informed. As to the berries visited at Mr. Loudon's plantation last week, I found none covered and he informed me he never covered his. I have taken some time and space to answer these questions. As the answers go into so many homes I have given the opinions of others as well as my own. It is a new fruit, originated by the persistent work of Mr. Loudon.—A. Phillips.

### Remove the Old Raspberry Canes—Why.

Some advocate the leaving of the old raspberry canes after fruiting, claiming that they are not only beneficial in protecting the young bushes during winter, etc., but that their mission is not really fulfilled during the year, holding that the next year's crop is impaired if bushes are removed before spring. Now the former claim may be true in some locations where the winters are extreme, and where a deep snow is beneficial, as the cane will hold the snow and aid in keeping the young growth from being broken down, but the latter we cannot see. When a bush is burned the cane is dying, and as all raspberry bushes do, then we are making a business of cutting out all the old canes and burning them sure, not put them in a pile or throwing into the wood lot. Why this care? To explain—Our raspberry fields were a pleasant sight to see in the early summer, the bushes commenced to be ready to pick, the canes commenced to show signs of sickness, and the fruit ceased to grow and in instances dried up. In examining the old wood we found one cause, four-fifths of the canes were infested with the borer, from one to ten being found in a cane; these pests were in the wood, and when the fruit was ready to come out and start business, of the young wood for another season, some just forming into insects, while some resembled ant's eggs. And this in the heart of the cane, of course, had taken the vitality out of the cane. It is not surprising that every old bush was speedily cut out and burned. Billions of these borers must have perished. Then again the dread disease of the raspberry, Anthracnose, spread badly, but if the old bushes are burned every year we expect to be able to take care of the coming crop. It is not a magical bush we will keep in mind after this, that old proverb, "An ounce of prevention is worth a pound of cure."

### The Loudon Raspberry.

Responding to the invitation of Mr. Green, in his Fruit Grower for July, I visited his home in the city suburbs, the latter part of July, to see the new raspberry, called Loudon. I was quite favorably impressed with the berry upon first acquaintance. The growth of cane appeared quite vigorous and for plants set last autumn they were very productive. The fruit was of a fine, rich, dark red, market variety of red raspberries. In size this was larger than the Cuthbert, of a lighter, brighter, crimson color; appeared to be firm enough to bear considerable handling and its flavor, when at its best, was more acid and sprightlier than that of the red raspberry. I could not find that it has a superior berry here, one that can be found adapted to a great variety of soils and conditions. Growing near the Loudon was a stool of the Royal Church raspberry. This is a very large, bright crimson berry of a sprightly, excellent flavor. To eat this I could not find anything to add to the Loudon, but upon the table with sugar, am of the opinion the Loudon would give better satisfaction.—P. C. Reynolds.

**Loudon Raspberry.**

I went to the grounds of Mr. Lodon, at Janesville, Wis., where it originated, and when the fruit was ripe. After spending nearly two days examining it on different soils, and consulting Prof. Goff, who is very conservative, and who visited the grounds, we both agreed that it was the best we had seen, and agreed on one thing, and that was that it does as well in other localities as it does at Janesville it will prove a valuable acquisition to our list of red raspberries. To satisfy myself as to the carrying qualities of the fruit, I took some of the fruit with which I carried to Port Athens, Madison, Sparta, and to West Salem, where my wife canned them on Monday following, when she pronounced them in good shape. It compared favorably with the others, and I value both in quality and worth.

### Shade for Red Raspberries.

A correspondent of the "Country Gentleman" writes that he has found a modification of shade beneficial to red raspberries. As a rule, no plants grow strongly or produce abundantly when standing near trees, which rob the soil of its nutriment, but, somehow, raspberries under the shade of a few trees grow larger canes and yield more and larger berries. To make sure that his observations were correct, the grower who made his report, counted the berries on eight canes which grew in the open sun, and on eight canes which grew together in the shade. The result was that the plant in shade bore about 50 per cent. more berries, while the size of these berries averaged a third larger than that of those in the sun. The slight difference in the number of berries might be due to the growing of 200 berries a cane for eight pickings, and 400 berries of these berries filled a quart measure. Taking the season through, the shaded stools yielded from four to five quarts each, while in the open field, the average yield was about three quarts.

ductions and found it as good as any I saw. Though the season was quite dry the bushes were well loaded with fruit, but as it was a new variety and high in price, I could not get a good place for trial and secured fifty for my own planting during the spring and summer of 1895. As I was still receiving letters of inquiry on the same subject, I concluded to make a trial of it on my own grounds, so I fixed the time at July 12th, and invited some practical fruit-growers of large experience to be present and I can do no better in answering the question I was asked, than to give you the statement drawn up by Mr. Harris and signed by them: "We, the undersigned, as committees of the Wisconsin and Minnesota State Horticultural Societies, hereby certify that we have seen and have carefully examined the new seedling Red Raspberry, on the grounds of F. W. Loudon, its originator, at Janesville, Wis., and freely say that it is the most promising sucker variety of Red Raspberries we have seen for productiveness, size, quality, flavor, firmness of fruit, hardiness

The tip of the plant must not be allowed to move when it is taking root, and it is only those which have fallen down and are covered by the soil which are likely to do so, and such vines are not many where they have been headed back in order to make them grow upright as is usually done.

A little experience last season taught me that the vines must be covered by the soil of the vine firmly in the soil in order to make it root. It does not matter much what condition the tip is in, either red or green, even broken off, it will throw out roots if it is covered by the soil. In some cases the tip is put straight down into the ground and not horizontally over the ground. In the latter case it will grow out and not root; if put down perpendicular to the soil it will almost invariably form a root.

A good tool for this work is a tile spade or dibble and the work of doing it is not much more than covering with the hoe, as is the case with the other plants. The only thing I make many plants where otherwise none would be made.—E. C. Green, Ohio Experiment Station, in Ohio Farmer.

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### Season for Planting Red Raspberry and Strawberry Plants

Fruit Grower readers should plant red raspberry and strawberry plants as early in the spring as possible; that is, as early as the soil will permit working, without being sticky. The earlier the better. Nevertheless, strawberry plants can be successfully transplanted as late as June 1st, providing the soil is not too dry at the time. Our correspondent also asked for a remedy for an insect which goes into the heart of the Hubbard squash, often destroying the plants. Will some of our readers kindly give the remedy?

### Red Raspberries.

Some of the best growers are in doubt about the propriety of pinching the ends of raspberries, and it is probable that it is better to do no summer pruning of them after the first year or two, unless in the case of very strong-growing kinds. If pinching is done at all the work should be done early, so that the plant should be pinched as soon as the branches begin to be eighteen inches, so that it will branch low. If this is neglected until the plant is three or four feet high it will send out a few weak branches near the top, most of which will be injured by the winter and will make an unsightly bush. The only objection to low branching is the liability to breaking from the settling of heavy snows, but this danger is slight.

### New Black Raspberry.

Friend Greene:—I wish to come to you for advice. I have been for the last 4 or 5 years raising seedlings of the black raspberry. I have had remarkable success. I have a black cap raspberry seedling that has fruited now four years. It is hardy, it has stood the winters without being hurt in the least. The berry is jet black, looks like a blackberry; fruit is large, the berries are very firm. Last summer I picked from the bush placed them in a box, rule; each berry covering three-fourths of an inch. The berry is jet black without any bloom. The fruit, in the market this season was pronounced the best that came. It is larger than the Grepps and about the size of a new waxed box of berries to one large farmers' club. On request, if worthy to give it a name. And they named it the Edmonds. The club said it was the best, largest and nicest berry that they ever saw. The club appointed committees to investigate and report. They reported in the affirmative that it is the best berry that they had seen. Its place as a leader in black caps. Now, sir, what is my best way to introduce it, or if I should sell outright what ought to be the price? I shall have about 2500 hundred plants in the spring. I am a poor, old man, 66 years old. Would like to get some money out of it as soon as I can. I ask as a great favor to give me your advice. This berry will take its place here in the south, the best on the market.—Yours, etc. Reynolds Mich.

(Reply: To introduce a new fruit requires not only capital but experience, and facilities for advertising, which you do not possess; therefore, your best plan would be to sell the variety. Most people who have a new variety of fruit expect too much in the way of profit from it. There are numerous varieties of new black-caps, and the variety must possess valuable characteristics to be worthy of introducing. Your berry being a peculiar shape would add to its value, and you should select a number of fruit growers and nurserymen to come to your place and see your berry, and give you testimonials as to its value. Meanwhile increase your stock of plants. There is no danger of having too many plants, if the variety is a good one. You should send a sample of the fruit to leading nurserymen, and they can see just what you have. Do not fail next year to mail us a few berries, notifying us by card when fruit is sent, or send us some in a basket by express, paying express charges. If you will send us two or three plants under restrictions not to propagate.—Editor.)

**Our I's and....  
....Other Eyes.**

Our I's are just as strong as they were fifty years ago, when we have cause to use them. But we have less and less cause to praise ourselves, since others do the praising, and we are more than willing for you to see us through other eyes. This is how we look to S. F. Boyce, wholesale and retail druggist, Duluth, Minn., who after a quarter of a century of observation writes:

"I have sold Ayer's Sarsaparilla for more than 25 years, both at wholesale and retail, and have never heard anything but words of praise from my customers; not a single complaint has ever reached me. I believe Ayer's Sarsaparilla to be the best blood purifier, that has been introduced to the general public." This, from a man who has sold thousands of dozens of Ayer's Sarsaparilla, is strong testimony. But it only echoes popular sentiment the world over, which has, "**Nothing but words of praise**

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## TWENTY YEARS AMONG FRUITS

About Raspberries.

Written especially for Green's Fruit Grower

By L. B. PIERCE.

My earliest recollection of blackcap rasp-  
berries goes back to a period when I  
could not have been more than five or six  
years old. The road which led to the vil-  
lage where the fruit was raised, and the  
shop were located which my father patron-  
ized, led along the banks of a canal and  
between the two wild berry bushes grew.

The soil was a shelly rock dampened by  
the seepage of the canal, and the raspber-  
ries made a beautiful growth and were  
loaded with fruit. One day I brought back  
from town a little tin cup and father  
stopped and let me pick a cup full of large  
black berries from one of the bushes,  
which were finer than I ever ate, inas-  
much as several berries on a cluster were  
ripe at once.

My father noted this fact, and it was im-  
pressed upon my youthful mind by the  
fact that the one raspberry which he  
that fall I shivered in the wagon while  
with an old mottack he grubbed the bush  
and took it home with a number of others  
which he had taken mental note of. He  
had a habit of transplanting bushes from  
the garden to the yard, and he had two  
each about seven rods long, which were  
obtained in this way, but taking up old  
bushes was not the best way, as he found  
out more than twenty years later, and if  
they lived at all they only made a weakly  
growth and some succumbed either to an-  
thrax or the yellow rust, which were  
full as prevalent then as now, although  
these diseases had not been studied up at  
that time. The berries which I gathered  
by the canal were taken home, and being  
too late for the market, were used for  
bread and milk. I put them in my bowl  
without sweetening and eat them with the  
bread and milk. I remember this was a  
favorite way of eating, not only raspber-  
ries but blackberries and huckleberries as well,  
about the farmers in those days bread  
and milk appearing as the chief dish on  
many tables several times a week. Just  
when this way of eating berries was  
changed to the modern one of having them  
in side dishes and using with sugar and  
cream and fell into disuse I do not remem-  
ber, but I suppose when strawberries came  
into general use, or it may have lapsed  
with the bread and milk diet which ceased  
to be so common, and the raspberries  
were largely supplanted by the march of  
progress and improved circumstances.

Nearly twenty years later a man by the  
name of Doolittle found a wild berry of  
much the same character as the one I  
picked many years before, and having made  
a careful study of the character and habits  
of the black cap raspberry propagated  
it extensively and introduced it generally  
through the country and this led to that  
gigantic extension of the black cap rasp-  
berry which is so simply enormous  
more than a dozen very desirable kinds  
being cultivated. One morning recently  
more than three hundred bushes of black-  
caps were brought into Akron, Ohio, before  
7 A. M., for sale among the dealers  
who supply that city of perhaps 35,000  
population. Small additional lots came in  
later in the day and were peddled from  
house to house. There is a sensible change  
going on in the taste of consumers in  
this respect, and gradually manifesting  
an increased desire for red raspberries,  
and more than double the quantity is con-  
sumed now of what were used four years  
ago. I think this is simply one of the re-  
sults of the march of progress, and the  
early black raspberry picked as it is before  
ripe, and often quite small is not a desir-  
able substitute for the strawberry and peo-  
ple after eating luscious strawberries to  
repletion for weeks do not like kindly to  
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The Palmer only a day or two later is a  
really good berry, of good size, and this  
year was the source of chief supply until  
more than a week after the Gregg was  
out. The black cap raspberry I grow is  
the Older and it had a nice taste it  
would be a fine table berry, as it is large  
with fewer seeds than any other kind. It  
however has a taste of creosote which is  
peculiar and not pleasant. It might pay  
them to make a selection of those where  
ham and eggs and onions formed the staple  
of the meal, but I am only supposing a case,  
as this combination has not been tried per-  
sonally. For all marketable qualities the  
Gregg is a superior berry, and its appear-  
ance and large size, added to great firmness  
making it a favorite with shippers and  
dealers. Some wonderful results have  
been obtained with this variety in my  
town by a market gardener in the man-  
ner of growing it. He has been successful  
in growing it in the open field, and the  
absence of anthracnose has not run up  
against any serious snags during the two  
years of his experience. High cultivation  
is deemed best for this variety, and it  
should be planted in a rank, soft growth,  
which is liable to winter-kill, thus  
avoiding rocks one gets into the whirlpool.

I have not fruited the Bureka, but the  
wonderful claim made for this variety  
that it combines the season of the Palmer  
and Gregg and is more productive than  
either. At this writing, August 9th, the  
young growth of the Gault's Everbearing  
are tipped out with long clusters of blo-  
ssoms and berries. The buds are before the  
crop upon the last year's canes were gone  
on July 25th. It thus bears an almost  
continuous crop from about July 10th to  
the beginning of winter. This is no figure  
of speech or unjustified statement as I  
have seen it upon its original grounds  
several times from July to November, be-  
sides fruiting it myself. It seems, how-  
ever, to be a weak grower when young  
and somewhat difficult to get started. If  
it could be made to be difficult to propa-  
gate, owing to its fruitfulness which gives  
no tips to root. The only way is to pinch  
back in May and this retards growth so  
that the resulting branchlets do not tend  
to fruit but being free from buds can be  
buried and made to root.

So much doubt has been expressed upon  
its overbearing qualities that I did not pinch  
back but let it nine bear fruit, and I  
think I can persuade any doubting Thom-  
as who will visit my farm. However I will  
have to wait another year for plants. I  
presume some cases where it has failed to  
show fruit upon the young canes has been  
from treating them to the same May or  
June pinching back, which was given to  
other blackcaps.

I have space for only a brief reference  
to culture. I have about come to the con-  
clusion that the best time to plant the  
blackcaps is in the autumn, just as late as  
possible, and that the best way to plant  
it possible when in the latter of October.  
The only objection is that the tips are not  
always mature at that time. The best way  
to proceed when the plants must be bought  
is to begin a year or two ahead, buying  
the tips and planting them in the home  
garden. There is more loss from buying blackcap  
tips than in buying any other equally cheap  
nursery product, and there is so much dis-  
satisfaction resulting from the difficulty of  
getting spring dug tips fresh into the hands  
of buyers, and getting them to attend to  
them promptly, that many wholesale or  
large distributing nurseries deal mainly in  
"transplants," that is, one year plants  
dwarfed by crowding into beds to which  
they are closely transplanted in the spring.

A grape vine or a red raspberry plant may  
be heeled in for weeks and not suffer, but  
blackcap tips put in in a jumble and care-  
lessly covered after dry out and fall to  
start, and any purchaser of tips should hold  
himself in readiness to drop everything (as  
and plant them, beginning the very hour  
they arrive, and persevering until all are  
set.

In giving thorough culture, which means  
frequent cultivating and removal of all  
weeds in the row, the grower runs up  
against a serious drawback and that is the  
spattering of all berries near the ground  
and during heavy rains. To avoid this  
the most careful growers in my vicinity  
tie to slender stakes and prune close. I am  
about adopting this way and have several  
thousand stakes four feet long and two  
inches big, ready to drive. We shall cut  
the old wood and tie the new growth to  
the stakes now before a great while. There  
is no royal road to clean culture of cap  
raspberries without a good deal of hand  
hoing two or three times.

There is nothing saved in planting in  
rows, for the increased ease of cul-  
ture does not begin to make up for the  
production, owing to having so many less  
plants per acre. Where several acres are  
grown it will pay well to have a Grape  
Horse hoe. This is an implement which  
works on the side of the horse's track, and  
in vineyard culture does away with a large  
amount of hand work. Its cost is about \$7.  
Red raspberries (the purple like Colum-  
bian, Shaffer and Haymaker belong to the  
cap class and are not here meant), should  
be planted in rows, and the berries, and  
most all the work of keeping down weeds  
may be done with horse cultivator, as the  
root deep and grow upright. About four  
and a half feet each way is the right dis-  
tance. The reds are easily transplanted  
and do not easily succumb either to an-  
thrax or the yellow rust, but the best  
of soil and the best of care pay. The  
old varieties are liable to be superseded by  
the Loudon and Miller Early. The latter  
is not as early into one picking as the  
turner, nor is the quality nearly as good,  
but it is larger in berry and of a darker  
color, besides somewhat firmer. My ex-  
perience is limited so I cannot tell as to  
its comparative productiveness, but it will  
have to hustle to produce more than the  
Turner under good cultivation.

The Loudon covers a week more of time  
than the Cuthbert beginning any ground  
that much earlier. They both gave their  
last picking on the same day, but the Loudon  
gave the most berries. I have never  
been able to produce a large crop of Cuth-  
bert, and on my farm it looked from two  
years limited experience as if the Loudon  
would easily produce twice the bushels per  
acre given by the Cuthbert. Each picking  
is certainly larger and we can pick the Loudon  
one-quarter faster, owing to some differ-  
ences of size and bush which are not  
readily apparent.

I am not yet ready to give up the Turner  
for its high quality and large amount of  
fruit produced early make it profitable, but  
after mid-season it is soft if the weather is  
warm and also small. It covers nearly half  
the Cuthbert season and I am going to  
make an inventory of last year's crop. The  
one-half of the Turner will alterna-  
te with the Cuthbert and in the other  
half every other plant will be Miller.

The berries will be gathered at the same  
picking, mixing as the work is done. I  
must not close without a word of caution  
in reference to the black cap raspberries  
of the Golden Queen. This beautiful yellow or  
buff colored fruit is excellent for home use,  
and is the most productive raspberry known,  
but it will not stand up and look  
very long and therefore is unsuitable  
for a market berry. It sold from two to  
four cents lower than red ones, and no  
dealer would buy it the second time until  
near the close of the season when anything  
was desirable. For home use where it can  
be picked when the weather is at its best  
there is no more desirable berry and it length-  
ens the season a full week after the Cuth-  
bert.

Raspberries form a succession crop to  
strawberries and may be sold to the same  
buyers using the same picks. The berries  
sold in home markets are the same grades.  
I know very few strawberry growers  
but what grow raspberries, but some  
labor under serious disadvantages of loca-  
tion and the pickers bleed them for about  
one-half of the price they would receive  
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## THE WONDERS OF SCIENCE.

## Lung Troubles and Consumption Can be Cured.

An Eminent New York Chemist and Scientist Makes a Free Offer to Our Readers.

The distinguished New York chemist, T. A. Slocum, in continuing his discovery of a reliable and absolute cure for Consumption (Pulmonary Tuberculosis) and all bronchial, throat, lung and chest diseases, stubborn coughs, catarrhal affections, general decline and weakness, loss of flesh and all conditions of wasting away, will send THREE FREE BOTTLES (all different) of his new remedies to any afflicted reader of the GREEN'S FRUIT GROWER.

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## The Calf Path.

One day, through the primal wood,  
A calf walked home, as good calves should;  
But made a trail all bent askew,  
Crooked trail, as all calves should be.  
Since then two hundred years have fled,  
And, I infer, the calf is dead.  
But still he left his trail, and  
Thereby leaves a mortal tale.  
The trail was taken up next day,  
By a lone dog that passed that way.  
And then a wise bell-wether sheep,  
Pursued the trail of crooked path.  
And drew the flock behind him, too,  
As good bell-wethers should.  
And from that day, o'er hill and glade,  
Through those old woods a path was made,  
And dog and dog and turned and bent about,  
And uttered words of righteous wrath.  
Because "twas said the crooked path  
But still they followed—do not laugh—  
The first migration of the calf.  
And through this winding woodland stalked  
Because he walked when he walked.  
This forest path and turned and turned again,  
This crooked path became a road.  
Where many a poor horse, with his load,  
Tolled on beneath the burning sun,  
And traveled some three miles in one,  
And thus a certain crooked path  
They told the footstep of that calf.  
The years passed on, and the road grew sweet,  
The road became a village street;  
And this, before the men were aware,  
A city's crowded thoroughfare.  
And soon the central street was this  
Of a renowned metropolis.  
And now two hundred years have fled,  
And still the footstep of that calf  
Tells day a hundred crooked path  
Of the trail of a crooked journey went  
A hundred thousand men were led  
By one calf near three centuries dead.  
Fact and Fiction.

## Machinery

It took two men a whole day to shoe a farm team for George Washington, while now one good workman will do it in less than two hours. Yet every intelligent man knows that the progress of the world is due to the greater percentage of men now than then, and pays them far better. The first mowing machine seen in Boston was dumped into a mud puddle by a lot of ignorant (?) carpenters who feared it would ruin their craft. Hundreds of similar inventions have since appeared. One common laborer can now turn out more joiner work in one day by machinery than a dozen skilled mechanics can turn out in a week by hand. Yet the world could fail to see the improved condition among carpenters in 1802 compared with what it was in 1792 or even fifty years ago? Let us abolish our grain binders, threshing machines, rakes, steamboats and all modern conveniences that aid the farmer in raising and marketing his crop; let us plow with the old-fashioned ox team, cut the grain with the sickle that the blacksmith made by hand; thresh it with a flail; take it to the nearest stream or lake, and flail it to the seaport towns, and what about prosperity? All that would do in early days, when merely a narrow strip of settlements skirted the Atlantic or our principal trading ports, but with our increased population pushing agriculture to the very core of our land, nothing less than labor-saving inventions of the best kind will procure the comforts of life coveted and expected by all civilized peoples.

## The Pacific.

BY BISHOP S. C. BRYCEFOOL.

Ancient maps of the world left out the Pacific. It is here nevertheless. Girdled with a belt of volcanoes, active and extinct, and studded with volcanic islands, it carries within its subterranean forces as much mighty and majestic power as the largest and deepest expanse of water on the globe, covering more than a quarter of its surface and reaching a maximum depth of nearly twenty-seven thousand feet, or more than five miles. It is a liquid continent inverted, whose blue watery peaks run downward into irregular depths. Upon this vast solitude of waters, unrelieved for days of sailing by either island or passing ship, yoking ship seems like the center of a floating disc, whose perfect circumference is the unbroken horizon. There are days of balmy skies and sapphire seas, followed by sunsets of purple and amber; days and nights of driving mists, or bounding fog, when the fog-horn discourses melodious music with quick and regular interval. Occasionally a blowing whale or a school of porpoises breaks the monotony. Small birds fly upon the waves, many, many miles away from the drop of fresh water. In certain quarters flying fish skim across the waters, their fin-like wings gleaming in the glorious sunlight. As you near the Japanese waters small "Portuguese Man of War," species of Nautilus, may be seen spreading their miniature sails—Evangelical Messenger. Girls, don't go to the city in the expectation of earning high wages. The co-operative home for girls, New York City, receives to the extent of its limited capacity girls whose pay is less than \$7 a week, and lodges and feeds them at the rate of from \$2.50 to \$3 a week; girls out of work are permitted to render an equivalent for their board in boiling, washing, dishwashing, etc. Matron Rappley says: "Most of our girls receive from \$4 to \$6. Of course we do not take them if they make more than \$7, but few even in the large dry goods stores make more than that. And many work in factories and shops for \$3 or \$4. Bookkeepers and accountants ordinarily make \$5 or \$6, and the business

schools are turning out continually classes of typewriters who are glad to work for \$6 a week. Out of this they must pay board, laundry, car fare, or walk miles to the main street, besides being expected to dress well and neatly every day. One girl here now makes only \$3.25 and we have occasionally had girls over 16 years old who worked from Monday morning until Saturday night for \$2.50. It is for such cases that the home provides, and, needless to say, it is always full.

## Good Rules for the Dairy.

If the following rules are observed milk will invariably come in good condition:

1. Nothing but tin pails should be used in the milk yard, as it is impossible to keep wooden pails sweet.
2. Cows' udders should be carefully washed or brushed before any milk is drawn.
3. Milk should be immediately aired by pouring or dipping from pail to pail before cooling, and thus cooled as quickly as possible to at least 60 degrees F.
4. Milk should be kept where the surrounding air is pure, free from stable odors or taint of any kind, as when milk is cooler than the surrounding air it takes on odors.
5. Wagoning milk should be cooled before mixing with the evening's milk.
6. Cows should have access to salt daily, as milk keeps sweet longer when cows are regularly salted.
7. Cows should not be permitted to drink stagnant or impure water, but have abundance of good water.
8. Cows should be driven quietly to and from pastures.
9. Cane as well as pails should be carefully washed with warm water not hot, and cane should be taken that the seams are cleaned, then they should be scalded with hot water and aired.

In order that the milk product of the herd may be of the highest standard in purity, cleanliness and wholesomeness, the following rules must be observed by all milkers:

1. The milker himself must be clean, keep clean hands and wear clean clothes.
2. Go quietly about the cows. Rough treatment and loud speaking means loss of milk.
3. Carefully brush or wash the udder and thighs before beginning to milk. All dirt or filth must be removed beyond the possibility of entering the milk pail.
4. The milking must be done with dry, clean hands. Wetting the teats with milk will not be tolerated.
5. Milk rapidly, but not hurriedly. Take time to do every thing right.
6. Fully weigh each cow's milk and record it accurately on the milk sheet; exercise care in taking a sample of the milk with the sampling tube and putting it in the jar numbered to correspond with the cow. When strain milk into a can, if the milking has been properly done no sediment will be seen on the strainer cloth after the milk has passed through.
7. Proceed in the same manner until all the cows are milked, taking them in the same order and at the same time each day.

## Orchard and Garden.

—A Michigan man found that apples stored in a paper bag kept much better than in the usual way.

—There can hardly be considered any best time to prune. In some conditions one time is best, and in others another. The growth and condition of the trees, the object to be procured, with the other things, must always be considered.

—Thumb and finger during the summer and a sharp knife during the winter are all that should, in ordinary circumstances, be needed to do necessary pruning. The best rule is never to remove a branch without good reason.

—Store the onions where they can be kept out of the sun and spread tolerably thin, then there will be no trouble in keeping them until cold weather. If piled, they will soon heat and rot. If you have no space, better sell them than to try storing.

—Strawberries cannot well be given too much culture. Even the wild strawberry is productive in proportion as it chances to grow in a spot free from weeds and grass. When thus hindered it makes only a slender, spindling growth, and bears few and sorry berries.

—A dish of strawberries, fresh from your own garden, is the greatest luxury you can have on your table. If you do not care to grow them for market, let them raise enough for your own use. If you have none now, set out a bed this fall and get your reward next summer.

—This station names the following as among the best varieties of strawberries grown at that station: Jerry Ruby, Splendid, Staples, Tennessee, Profit, William Belt, Warfield, Haverland, Greenville, Bubach, Crescent, Enhance and Lovett. For marketable berries Margaret are fine, showy berries but not sufficiently prolific for market.

—Pay some attention to things which make life pleasant, and the business of money making will prosper any time, and the wife and the children will like the farm better. Do not grow over a vegetable garden nor sow at flowers; once see the yard bright, and you will get to the old order of things. If you have an attractive house-yard you will be the first to boast of it to callers.

—How many apple growers know what it costs to produce a barrel of fruit or what the real revenue of an orchard may be? In New Jersey an official investigation on this subject has been made and it was found that the average yield was six barrels an acre, but the most successful growers exceeded 100, showing that the average could easily be brought up to 100 barrels an acre. The average price realized was \$1 a barrel, or \$60 an acre, and the average cost of cultivating, pruning, spraying and picking was \$22.40 an acre. This includes cost of packing and marketing, as freight rates and commissions vary so much that it was difficult to get reliable data on those points, but there was much complaint against both, and on the other hand, the commission men. One of the most successful orchardists of the state made the following report: "Two-year-old trees were procured from a local nursery and set in the field, thirty-five feet apart each way, in a sandy loam with clay subsoil, sloping southward. In July or August of every year, crimson clover is sown and the crop is plowed under the following May. The orchard is then harvested every two or three weeks till July or August, when 1,000 pounds an acre of an even mixture of acid phosphate and muriate of potash is applied and seed of crimson clover again sown. The average yield in 1905 was 180 bushels an acre, bringing \$142.50. The average total expense of cultivating, pruning, manuring, spraying, thinning, harvesting, packing and marketing was \$45 an acre, leaving a net profit of \$97.50 an acre. Pruning was generally done in the winter, the top being kept open to sun and air—Farmers' Guide.

—The greatest object in the universe, says a great philosopher, is a good man struggling with adversity; yet there is still a greater, which is the good man that comes to relieve it—Goldsmit.

## New York Peach Crop.

The following is from Britton & Co.: "From correspondence with over one hundred dealers, who have personally investigated the growing crop, we make the following estimate: Connecticut, 300,000, against a comparative failure last year; New York, 2,000,000, against a failure last year; New Jersey, 3,000,000, against 1,200,000 last year; Pennsylvania, 500,000, against a comparative failure last year; Delaware, 600,000, against 3,000,000 last year; Maryland, 500,000, against 4,000,000 last year; Georgia, 200,000, against 1,500,000 last year; Michigan, 200,000, against 2,000,000 last year; Ohio, 400,000, against 200,000 last year; Arkansas, 3,000,000, against 1,000,000 last year. The above is based on 1-2 bushel baskets and shows a total of 10,000,000 against 13,900,000 last year. While we see by this there are none too many peaches, yet we realize that the crop of Western New York is large and 6-10 of the same are early. Crayfords, which will have to be harvested within ten days when they commence ripening. This is a great disadvantage over other states which grow nine or ten varieties about equally divided, giving them two months to harvest. And Western New York has not having had a crop to exceed 100,000 above home consumption for 21 years, will undoubtedly make awkward work both with harvesting and shipping, and we fear this will mean very cheap peaches, if not many to go to waste."

## Borers in Fruit Trees.

The apple, quince, peach and plum are especially liable to injury from insects which bore into the bark and eat their way to the heart of the fruit. These may be guarded against by painting the tree, at the place attacked, with pine tar. Some authors complain of injury to the tree from this application, but this has not been the writer's experience. Coal tar is certainly very often injurious; but no bad results have ever followed the use of pine tar. If, however, there should be any fear of this proving deleterious, wheel grease, which is a mixture of pine tar and lard, is certainly safe. One has to be sure that there are no insects in the tree before the application is made. A slim penknife or a light wire will aid in this investigation.—American Cultivator.

## Overcounting.

It has been computed by someone fond of mathematical calculations and anti-theft conceits that if the food which is consumed in Great Britain, not only in excess of need, but to the actual harm of the country, could be saved and sent to India, it would only take the time of the starving thousands in that country.

This computation is, of course, little more than a guess, but it serves to emphasize the fact that many, perhaps the majority of mankind above the ranks of the very poor, sin against themselves daily by overcounting.

An English hygienist of repute says that a large proportion of the ills which afflict men past the middle of life are due to errors in diet, chiefly in the direction of excess in quantity. He even goes so far as to make the deliberate assertion of excess in diet, in the shape of lessened resistance to actual disease and shorter life comes to the inhabitants of Northern Europe from their habits of eating than from their abuse of alcoholic liquors.

And what is said of Englishmen applies with equal force to Americans. We not only eat too much, but we eat too often, but we eat food that is too nutritious in proportion to its bulk; in other words, we eat too much meat.

Not only are stout and rheumatism favored, or, as some eminent authorities contend, solely caused by too much meat, but even certain tumors are thought by many to be hastened in their growth by the same means.

For the majority of city dwellers, especially brain workers, three meals a day are too many; two are all sufficient for most people, and many are better off with meat only once in the twenty-four hours. The other meals should be slight, consisting of bread, butter, cheese, milk, green vegetables and fruit.

There is an unfounded prejudice against nuts, which are regarded as indigestible, but that is because they are eaten at a wrong time; both fruit and nuts are excellent foods, but they should be taken at the beginning of breakfast or luncheon, instead of at the end of the meal.

The dietary rules for lenten observance which the Catholic church imposes upon its members are hygienically inapplicable, and it would be better for nearly all of us—unless the doctors be excepted—if these rules were followed, not only by Catholics during Lent, but by everybody all the year round.—Yonli's Companion.

## Burdette and the Bicycle.

A report got into circulation to the effect that Bob Burdette was dead. The Burlington "Hawkeye," with which the humorist was formerly associated, denied the rumor, and Bob confirms the denial in the following letter to the editor, dated Bryn Mawr, June 14, 1897:

My Dear Editor:—Like the true friend and loyal comrade you ever were, you will right to protest against my burial prior to the autopsy.

I am indeed very much alive. Not only so, I haven't been dead even a little bit. Not a word has been heard of me, and I was to be. Could be right. But I don't want. May be I ought to be, even now. But, as we make weekly confession—"We have left undone those things which we ought to have done, and we have done those things which we ought not to have done."

Possibly the rumor that I had been dead grew out of the fact that I have learned to ride a bicycle. I say, "have learned." Not "am learning." Learned in one lesson. Went out in the moonlight last Friday night to learn, having first locked my family in the house and forbade them to look out of the windows. Led my bicycle out on the turnpike—Bryn Mawr pikes are broader than the way to destruction, twice as smooth and much cleaner. It's a young bicycle—a colt, foaled in '97. Would give my name but for the fact that I had to pay for the wheel. Well, only say, therefore, in accordance with the ethics of our profession, that it is NOT the wheel anybody says it is.

I held him by the withers right in the middle of the road, and mounted without assistance.

I dismounted in the same independent manner.

Got on again and proceeded to break him to saddle.

Did the first time?

Well, say! People had told me—lars of all ages, and both sexes—that I couldn't fall, if I fell I felt that I was falling, I would stick out both feet and both hands and fell on my head.

I fell on one side of that diabolical wheel and then on the other; I fell on both sides at once. I fell on top of it, on underneath it, and made "dog-falls" with it. I fell between the wheels. I fell behind the hind wheel and before the front one at the

same time and don't know yet how I did it. I fell and thrust both legs through the spokes of one wheel. I met a terrified man in a buggy and drove him clear off the pike through Wheeler's hedge, and I don't think he has come back yet. Every time I fell I slapped the palms of my raw, swollen, throbbing hands on the hard, "ineffectual" pike, except the time I fell on my head. I fell harder and with greater variety of landing than any man could fall unless he dropped out of a balloon and lit in a load of furniture. I lost my confidence, my patience, my temper, my clamps, lamp, bell and reputation. I broke one pedal, the saddle, and the ordinance against loud, boisterous and abusive language at night. I ran into everything in sight except the middle of the road. I sat down on everything in the township except the saddle, and scored a first in a circuit of fifteen feet in circumference until you could smell brimstone. I made more revolutions than a South American republic, and didn't get ten feet away from where I started. I then went home so mangled and abused, so thumped and beaten, so trampled upon and pounded, so bruised and scratched since I left the army. But I can ride.

I don't say that I "do." But "can." Do I consider "biking" good for the health?

For the health of some people, I do. I don't see how a physician can bring up his family unless his children have something to eat.

But in my own case, I reserve my decision. I will wait until I know whether I am going to die or get well. And you tell Brother Davis to keep his obituary on the standing shelf until he hears from "Nine." I don't believe I've got "30" yet. Although friends who have called to see me break down when they say "good-by" and walk out of the room on tiptoe. But I wouldn't mind that if I knew what became of my shoulder blades the time I ran under the hay wagon.

Cheerfully yours,  
ROBERT J. BURDETTE.

## Waterproof Paper.

A. F. Newman, of New York City made an experiment at the mills of the Rock City Paper Company to-day, which will result in establishing a novel industry. He turned out in quantity by the new secret process that he controls. The question to be solved was whether it could be turned out in sufficient quantities and at a reasonable expense. Mr. Newman answered that question. The new paper is waterproof, can be washed, and is toughened by contact with dampness. It can be made of any thickness, and will constitute an almost indestructible material for legal documents. It is so strong that the Rock City Company has contracted for large quantities to line their tanks. Special machinery will be put into the Rock City Mills, and manufacturing begun at once.—American Cultivator.

## Whitewash for Scale.

A Tennessee correspondent refers to Mr. Saunders' note in regard to the destruction of scale by lime wash, and remarks that he practised it successfully a half a century ago, adding, however, a little soil with the lime wash in order to take away the gloss. It is said that the Standard Oil Company has contracted for large quantities to line their tanks. Special machinery will be put into the Rock City Mills, and manufacturing begun at once.—American Cultivator.

## Thoughts.

—Every man that striveth for the mastery is temperate in all things.—I Cor. ix, 25.

—A difference of tastes in jokes is a great strain on the affections.—George Eliot.

—The fruit of the spirit is love, joy, peace, long suffering, gentleness, goodness, faith, meekness, temperance.—Gal. v, 22, 23, f. c.

—Love is a train of moods like a string of beads, and as we pass through them they prove to be many-colored lenses which show the world their own hue and each shows only what lies in its focus.—Emerson.

—Religion cannot pass away. Be not disturbed by infidelity. Religion cannot pass away. The burning of a little straw may hide the stars, but the stars are there and will reappear.—Thomas Carlyle.

—I do believe that the best work is the work formerly associated with the hero's aspiration that lifts him to his labor. All great duties are easier than the little ones, though they cost far more blood and agony.—Phillips Brooks.

—My Dear Wife:—I have a book full of light and wisdom. It will make you wise to eternal life, and furnish you with directions and principles to guide and order your life safely and prudently. There is no book like the Bible for excellent teaching, wisdom and use.—St. Matthew Hale.

—If we care to live and walk in the Spirit, if we care to be receptive of heavenly forces and to taste the sweetness of the true, the beautiful and the good, we must make inward room for the best things; we must exercise ourselves to familiarity with the higher subjects.—C. G. Ames.

—The cross is the salt which saves our civilization from decomposition—no salt, it is a furnace which welds its heterogeneous and opposing elements together and prevents them from breaking asunder. The cross is the gathering point, the focus, the source of all that elevates the thought and preserves the hopes of this present time; and therefore we may say with all the emphasis of the apostle, "God forbid that I should glory, save in the cross of our Lord Jesus Christ."—Greenough.

The great problem is, after all, how shall one grow in sympathy and tenderness and generosity and consideration? How shall he feed on high thoughts and noble aims? How shall he be swift to discern and avail himself of those opportunities for usefulness to others which are the best channels of his own growth? How shall he hold clear and close relation with the divine energy? "Be one of the conquerors" said Balzac. "The universe belongs to him who wills and loves and prays; but he must will, he must love, he must pray!" In a word, he must possess wisdom, force and faith.—Lillian Whiting.

"Well, Mollie," said the little girl's father, "what have you been doing all day?"

"Doing nothing," said Mollie, pouting. "I've been doing most of the time."

—Harper's Bazar.

## Fruit in Hot Weather.

It is a popular fallacy that the free use of fruit in summer is the cause of bowel disturbances, while as a matter of fact fruit can be more healthful at this time than at any composed of fruit and farinaceous foods with perfectly pure milk. Flesh of all kinds decomposes with great rapidity both before and after eating and summer heats greatly accelerate this process; hence flesh food frequently causes grave derangement of the bowels, as the poison produced by this decomposition acts powerfully as an emetic and purgative. All meats are so heating that they should be used sparingly during hot weather, and there is the added argument that the whole system craves a change from the winter's diet.—Farmer and Fruit Grower.

## Which Should We Believe?

The man who sets out to regulate his life by well-regulated proverbs will find himself in a quandary when he considers that many of them have their "opposites." Here are some instances:

Proverb: Marry in haste, and repent at leisure.

Opposite: Happy is the wooing that's not long a doing.

Proverb: Out of sight out of mind.

Opposite: Absence makes the heart grow fonder.

Proverb: A rolling stone gathers no moss.

Opposite: A sitting hen gathers no feathers.

Proverb: A stitch in time saves nine.

Opposite: It's never too late to mend.

Proverb: There's honor among thieves.

Opposite: Set a thief to catch a thief.

Proverb: Discretion is the better part of valor.

Opposite: Nothing venture, nothing have.—Aberdeen Free Press.

## Reflections of a Bachelor.

Meddlesome mothers are pretty apt to have curious notions.

The average woman's idea of politics is finding something that she can "protest" against.

At some time in her life, probably every girl sees something or other on to her garret door.

When a rich girl's hair looks like streaked molasses candy, it is said to be of the color of spun gold.

Train up a hired girl in the way she should go, and she will depart from you and go to the neighbors for a dollar a month more.

Down at the bottom of every woman's prayer is a reminder to the Lord that He knows she has put up with so much from her husband.

Men like to spend money; women like to have it to spend.

No woman who believes in her husband believes in spiritualism.

When a girl first calls a man "sweetheart," she shuts her eyes and puts her face down on his shoulder.

The man who goes around like a funeral all the time at home often has to work hard to look sad in a game of poker.

When a girl buys cigarettes for a man, she feels about as funny as a man does when he buys some baby powder for his wife.

When a girl hears of another girl's being kissed, she acts awfully shocked, but it wouldn't phase her at all if it had happened right under her nose.—New York Press.

## Live Stock Notes.

Vaseline is a fine remedy for sores on the horse.

The swill barrel on wheels is a great convenience.

Harass that is crusted with sweat and dirt on the hindquarters of a horse.

Soaked corn, instead of meal, may be fed to the pigs during summer.

Feed the pigs when weaned one-third corn meal and two-thirds shorts.

The horse that works six days in the week earns a rest on the seventh.

Ill-fitting harness is to the horse like an ill-fitting, pinching garment to a man.

It is claimed that hogs will eat soya bean hay as eagerly as a cow will eat clover hay.

Pigs that do not have enough good milk will be stunted. Feed the sow bountifully.

Keeping a horse on corn alone in summer is like building a fire in the parlor stove in August.

Cow pens, unless wanted for pasture alone, should not be planted on rich or naturally moist ground.

Ground wheat, mixed with milk, pretty thick, or as thick as will pour, makes excellent feed for the pigs.

It is a good plan, says a writer, to feed corn to the sows and pigs—soaked corn—before the pigs are weaned.

The bicycle has undoubtedly injured the liver by its consequent heat, but it is an injury to scrub horse breeding.

When stock feeders, says a writer, come to know the value of peas and beans for feed, they will be as staple as corn.—Plowman.

## MARION MILLS.

How the Mare was Taught to do the Work.

There is not a horseman or a lover of horse-flesh in the state of New York who will miss the opportunity, if within their grasp, of seeing the work of Marion Mills, the wonderful little pacing mare. She was first brought to notice late in the season of 1896 and immediately attracted wide-spread attention among horsemen and the general public.

She requires no pace-maker, no guiding, no whipping, no urging, no assistance of any character. "She knows her lines" and goes through them without faltering and with the utmost confidence in her own ability. She is started at the usual scoring distance and is in perfect action when she receives the word "Go" from the judges' stand. On getting "the word" she quickens her speed and is "away," keeping well in to the pole.

Marion Mills is a light bay with black points. She was foaled in 1891, stands 15-1-2 hands high, and weighs 950 pounds.

Seven car loads of currants were marketed this year by one man in Western New York, who thinks currants are the best paying of all the fruit crops.

—Get your neighbor to join you in an order on Green's Nursery Co., Rochester, N. Y., this fall, and get 10 standard pear trees free with each \$5 worth of stock ordered, as per conditions on page 39 of our catalogue, which you will get without application.

## SAVE MONEY ON FRUIT PLANTS.

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BEING a complete embodiment of all the claims connected with the above strange sciences, this book opens the sealed door at once and makes one a Clairvoyant, a Mesmerist, a Psychologist and a Spirit Medium, without spending money to learn from those already skilled. With this book in your possession all mystery will disappear, and what before seemed to you beyond all human explanation will be as clear as the light of day. It should be sold for \$200, instead of 35 cents. Clairvoyance gives one power over their acquaintances. Anyone can become a proficient operator and the results of all ventures and speculations, and moves wisdom to the uttermost. Clairvoyance teaches how to get on in the world and own houses and lands, and gold and silver mines, and where to find treasures hidden or buried, and how to accumulate money very rapidly. It enables any one to discover, locate and generally cure diseases, and discern things that are transpiring at other places, though thousands of miles distant. Clairvoyance overcomes trouble of any kind. Clairvoyance enables a person to know whether their lover is true or false, and in fact all their movements may be known. It reveals lucky numbers in lotteries, and enables one to know which of the races and which clubs will win the game. Clairvoyance